



CityEdge MicroAP®

Flexible, convenient, and cost-effective communications for critical infrastructure

The CityEdge MicroAP is a member of the Access Point (AP) family, which offers secure, flexible connectivity between the Itron network and back-office applications via built-in cellular technology— enabling high-performance applications, network control, and monitoring. It offers multiple paths to each endpoint device through sophisticated mesh network routing that ensures greater reliability and redundancy.

The product seamlessly utilizes the best communications path while maintaining full streetlight networked lighting controller (NLC) functionality such as managing on/off control, dimming, and providing highly accurate energy and power measurement. It can be installed in any standard NEMA 3, 5 or 7 pin socket (ANSI C136.10/.41). This product significantly simplifies the installation process. With its small form factor coupled with a reduction in installation complexity, it provides a cost-effective solution for extending Gen[™] 5 network coverage in sparse areas or hard-to-reach terrains. In addition, its simplified design provides an improved return on investment and streamlines the deployment for area lighting, which typically involves a smaller number of lights. It is an ideal solution for either a targeted area lighting or to augment the traditional Access Point 5 in a full streetlight deployment.



FEATURES

Networked Lighting Controller Functionality:

- » Dimming Control: On/Off/Dimming
- » Highly accurate energy, power measurement and reporting
- » Proactive event and fault identification
- » Rugged and robust design with superior inrush and surge protection
- » ANSI C 136.41 7 pin design to support dimming & sensor data
- » Compatible with Itron's CityEdge Platform, the Central Management System and CityEdge: GO field tools

FEATURES:

Access Point Functionality:

Secure, reliable performance to enable the most demanding smart infrastructure applications

- » Up to 600 kbps data speed
- » 10 ms latency
- » 900 MHz radio
- » Open standards-based two-way communications and interfaces
- » IPv6; IEEE 802.15.4g, Wi-SUN capable
- » Cellular WAN backhaul (4G LTE)
- » Dynamically adaptive data rates to ensure maximum performance while ensuring backwards compatibility

- » Integrated, open standards-based security leveraging public key-based authentication and AES-256 encryption
- » Supports two-way communications including remote management and firmware upgrades
- » Advanced functionality that enables full power cycle of the device, thus eliminating truck rolls

KEY BENEFITS

Convenient, cost-effective expansion of network coverage to small, sparse and hard-to-reach areas

The CityEdge MicroAP, with its flexible and simple design, enables the extension of Gen5 network coverage to hard-to-reach areas as well as locations with sparsely located streetlights or other endpoints.

Easy and accelerated time-to-value with its simplified deployment

The smaller form factor helps to simplify the deployment model which results in lowering the implementation cost of the project. Additionally, with its simple "twist-lock" installation, it further improves the total cost of ownership.

Risk mitigation through proven, multi-layer security

Two-way communications remain protected from the increasingly hostile threat environment by building on Itron's proven, multi-layer security that leverages on built-in controls from the application to the device layer.



TYPICAL USE CASES

Cost-effective solution for small/ sparse deployment areas – Each

CityEdge MicroAP supports up to 500 endpoints in the Gen5 network . This product is the ideal solution for providing Gen5 network coverage to small clusters of endpoints, whether they are in a rural terrain or contained on a university/ corporate campus.

Coverage for hard-to-reach

endpoints – Use the CityEdge MicroAP as a cost-effective approach for connecting Gen5 network endpoints in the hard-toreach locations such as basements, meter rooms.

Water metering under streetlights -

Using streetlights to build a network canopy across a given geographic area is made easier with the CityEdge MicroAP product.

Area lighting solutions (for example, parking lot, campus, retail outlet) –

The CityEdge MicroAP is a key component of the kit required to provide simple, plugand-play solutions for the area lighting market.

CityEdge MicroAP top mounted onto luminaire

SPECIFICATIONS

NAN Communicationsv	Protocol IEEE 802.15.4g
	Data rates: Up to 600 kbps
	Spread spectrum: 902-928 MHz frequency bands
	Transmitter output: 27 dBm (500 mW)
	Receive sensitivity: -98 dBm
Cellular Communications	4G/LTE support, SIM Supported: 2FF, MVNO*: AT & T, Verizon, Eseye
Security	Addressing: IPv6
	Encryption: Advanced Encryption Standard (AES-128 or AES-256)
	Security: Secure Hash Algorithm 256-bit (SHA-256) and RAS-1024 or ECC-256
Operating Voltage	120V-277VAC
Model number	For AT & T: SL MICROAP 5.0, SL 511-NA1, NA
	For Verizon: SL MICROAP 5.0, SL 511-SV1, NA
Frequency	50/60 Hz
Metering	Voltage, Current, Power Factor, Frequency, Energy and burn hours
Load Switching	5A
Metering Accuracy	1%
Dimming	0-10V and DALI (auto detect); requires 5 or 7 pin NEMA Socket
Environmental	IP-66 IK-08
Surge Protection	10kV/5kA as per ANSI C136.10
Last Gasp messages	10 minutes with embedded battery back up
Operating Temp	-30°C to +65°C (-22°F to +149°F)
NEMA Socket	ANSI C136.41 (5 and 7 pin) or ANSI C136.10 (3 pin)
* Currently supported SIM Card types. Cellula	r modem on the product can support other SIM cards in the future.

DIMENSIONS

Diameter	140 mm (5.5 in)
Height	120 mm (4.7 in)
Weight	0.8 kg (1.75 lb)

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